

Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use: 2002

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2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
334512, Automatic environmental control manufacturing for residential, commercial, and appliance use 2002..	320	339	18 310	678 568	11 740	23 044	324 054	1 982 934	1 249 016	3 271 761	'61 744
2001..	N	N	18 022	646 153	11 818	23 691	320 180	1 788 987	1 299 069	3 091 114	85 997
2000..	N	N	20 241	720 002	13 450	27 264	370 240	1 972 344	1 319 136	3 301 773	88 695
1999..	N	N	20 480	697 647	13 721	28 413	367 589	1 880 864	1 173 387	3 089 522	85 863
1998..	N	N	20 477	670 457	14 531	27 165	366 769	1 898 607	1 261 242	3 133 485	115 185
1997..	297	318	21 470	666 464	14 922	29 904	371 348	1 737 147	1 195 244	2 943 971	114 952

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
334512, Automatic environmental control manufacturing for residential, commercial, and appliance use												
United States	—	339	127	18 310	678 568	11 740	23 044	324 054	1 982 934	1 249 016	3 271 761	'61 744
California	—	47	17	1 476	61 329	866	1 842	28 463	309 216	225 676	518 467	'10 293
Florida	5	14	1	137	4 498	72	156	2 303	11 100	6 207	17 222	'269
Georgia	—	8	6	379	15 747	167	333	4 402	65 638	36 818	102 296	'2 148
Illinois	—	19	9	1 690	60 782	1 016	1 883	25 296	243 631	139 592	381 623	'3 377
Indiana	—	10	6	1 795	53 433	1 264	2 387	27 538	154 251	128 506	287 606	'5 754
Massachusetts	6	8	4	482	17 648	256	531	6 829	64 298	51 731	116 116	'5 126
Michigan	—	12	4	544	18 801	381	683	11 792	58 473	50 743	109 723	'1 047
Minnesota	—	13	4	1 916	104 500	1 052	1 969	44 927	314 899	86 416	447 541	'4 348
New Jersey	2	15	6	310	14 059	133	264	4 475	29 511	12 340	41 830	'1 493
New York	7	14	3	209	7 159	139	279	3 655	17 795	10 254	28 028	'566
North Carolina	1	8	3	232	8 705	139	226	2 928	19 121	9 668	29 482	'494
Ohio	—	21	10	2 909	95 858	1 965	3 885	45 697	198 393	108 954	305 403	'7 454
Pennsylvania	1	19	6	432	14 010	289	609	6 493	26 258	16 194	43 370	'764
Tennessee	—	10	8	1 363	40 168	1 059	1 963	25 475	83 938	60 053	141 392	'3 279
Texas	—	15	5	624	32 775	422	941	19 028	22 001	42 489	64 498	'1 376
Wisconsin	—	12	6	662	21 591	457	831	10 686	51 183	48 999	100 500	'3 316

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
334512, Automatic environmental control manufacturing for residential, commercial, and appliance use	
Companies ¹	320
All establishments ²	339
Establishments with 1 to 19 employees	212
Establishments with 20 to 99 employees	86
Establishments with 100 employees or more	41
All employees ³	18 310
Total compensation	851 006
Annual payroll	678 568
Total fringe benefits	172 438
Production workers, average for year	11 740
Production workers on March 12	11 875
Production workers on May 12	11 881
Production workers on August 12	11 607
Production workers on November 12	11 578
Production worker hours	23 044
Production worker wages	324 054
Total cost of materials	1 249 016
Materials, parts, containers, packaging, etc., used	970 117
Resales	237 298
Purchased fuels	3 701
Purchased electricity	18 354
Contract work	19 546
Quantity of electricity purchased for heat and power	301 389
Quantity of electricity generated less sold for heat and power	S
Total value of shipments	3 271 761
Primary products value of shipments	2 619 942
Secondary products value of shipments	249 485
Total miscellaneous receipts	402 334
Value of resales	381 400
Contract receipts	895
Other miscellaneous receipts	20 039
Primary products specialization ratio	91
Value of primary products shipments made in all industries	2 827 731
Value of primary products shipments made in this industry	2 619 942
Value of primary products shipments made in other industries	207 789
Coverage ratio	93
Value added	1 982 934
Total inventories, beginning of year	386 914
Finished goods inventories	114 360
Work-in-process inventories	125 192
Materials and supplies inventories	147 362
Total inventories, end of year	322 298
Finished goods inventories	85 866
Work-in-process inventories	113 875
Materials and supplies inventories	122 557
Gross value of depreciable assets (acquisition costs) at beginning of year	1 059 950
Total capital expenditures (new and used)	61 744
Buildings and other structures (new and used)	5 533
Machinery and equipment (new and used)	56 211
Automobiles, trucks, etc., for highway use	2 289
Computers and peripheral data processing equipment	6 306
All other expenditures for machinery and equipment	47 616
Total retirements	61 176
Gross value of depreciable assets at end of year	1 060 518
Depreciation charges during year	63 567
Total rental payments	33 721
Buildings and other structures	20 007
Machinery and equipment	13 714
Total other expenses ⁴	129 702
Response coverage ratio ⁵	77
Repair and maintenance services of buildings and/or machinery ⁴	14 876
Communications services ⁴	5 681
Legal services ⁴	1 336
Accounting, auditing, and bookkeeping services ⁴	1 322
Advertising and promotional services ⁴	6 167
Expensed computer hardware and supplies and purchased computer services ⁴	1 730
Refuse removal (including hazardous waste) services ⁴	1 168
Management consulting and administrative services ⁴	17 906
Taxes and license fees ⁴	5 251
All other expenses ⁴	74 264

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
334512, Automatic environmental control manufacturing for residential, commercial, and appliance use											
All establishments	—	339	18 310	678 568	11 740	23 044	324 054	1 982 934	1 249 016	3 271 761	'61 744
Establishments with —											
1 to 4 employees	9	109	217	6 274	150	248	3 336	16 109	11 246	27 375	'566
5 to 9 employees	8	60	428	13 561	286	584	7 172	39 745	23 519	63 025	'1 198
10 to 19 employees	4	43	606	20 113	380	754	8 962	48 398	32 385	81 427	'1 607
20 to 49 employees	2	65	2 033	76 586	1 154	2 363	30 821	220 881	136 649	359 020	'9 201
50 to 99 employees	1	21	1 447	53 970	768	1 611	20 024	111 765	85 159	197 628	'3 885
100 to 249 employees	—	22	3 518	133 357	2 103	3 933	54 156	478 097	354 554	823 654	'18 311
250 to 499 employees	—	13	4 879	190 619	3 346	6 833	106 117	548 815	360 920	908 831	'14 680
500 to 999 employees	—	5	h	D	D	D	D	D	D	D	D
1,000 to 2,499 employees	—	1	g	D	D	D	D	D	D	D	D
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	161	682	20 076	479	919	11 208	58 313	34 875	93 182	'1 958

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use	339	18 310	678 568	11 740	23 044	324 054	1 982 934	1 249 016	3 271 761	'61 744
3345120	Automatic environmental controls for monitoring residential, commercial, and appliance use	339	18 310	678 568	11 740	23 044	324 054	1 982 934	1 249 016	3 271 761	'61 744

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use	2002.. N 1997.. N	X X	X X	2 827 731 2 935 423
3345120	Automatic environmental controls for monitoring residential, commercial, and appliance use	2002.. N 1997.. N	X X	X X	2 827 731 2 935 423
33451201	Automatic environmental controls for monitoring residential, commercial, and appliance use	2002.. N 1997.. N	X X	X X	2 606 086 2 781 064
3345120100	Automatic environmental controls for monitoring residential, commercial, and appliance use ¹	2002.. 149 1997.. 188	X X	X X	2 606 086 2 781 064
3345120Y	Automatic environmental controls for monitoring residential, commercial, and appliance use, nsk, total	2002.. N 1997.. N	X X	X X	221 645 154 359
3345120YWW	Automatic environmental controls for monitoring residential, commercial, and appliance use, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	142 437 78 602
3345120YWY	Automatic environmental controls for monitoring residential, commercial, and appliance use, nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	79 208 75 757

¹For additional detail, see Current Industrial Report MA334B, Selected Instruments and Related Products.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use		
00900001	Total materials	X	970 117
33441200	Printed circuit boards (without inserted components) for electronic circuitry	X	1 044 660
001900C4	Printed circuit assemblies, loaded boards, and modules (printed circuit boards with inserted electronic components)	X	25 618
	.....2002..	X	34 426
	.....1997..	X	
33441300	Semiconductors (including transistors, diodes, rectifiers, and integrated circuits), for electronic circuitry	X	35 788
33441400	Capacitors for electronic circuitry	X	14 728
33441500	Resistors for electronic circuitry	X	
	.....2002..	X	52 700
	.....1997..	X	62 517
001900D3	All other miscellaneous components and accessories, for electronic circuitry (excluding tubes)	X	11 122
33593101	Current-carrying wiring devices	X	10 117
001900B1	Electrical transmission, distribution, and control equipment	X	4 527
	.....2002..	X	13 086
	.....1997..	X	
33451501	Electrical instrument mechanisms and meter movements (including instrument relays)	X	7 451
33451503	All other miscellaneous electrical measuring instruments and parts	X	45 722
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc.	X	17 434
	.....2002..	X	19 069
	.....1997..	X	D
32610007	Fabricated plastics products (excluding gaskets, hoses, and belting)	X	13 038
332000A9	Sheet metal products (excluding stampings)	X	
332000AC	Metal stampings	X	1 087
	.....2002..	X	D
	.....1997..	X	10 715
332000AE	Other fabricated metal products (excluding forgings, metal stampings, and sheet metal products)	X	D
33210000	Forgings	X	N
33100035	Castings, rough and semifinished	X	5 369
	.....2002..	X	37 255
	.....1997..	X	
33100033	Metal shapes and forms (excluding castings, forgings, and fabricated metal products)	X	3 031
33120001	Steel shapes and forms (excluding castings, forgings, and fabricated metal products)	X	34 262
33100038	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products)	X	6 667
	.....2002..	X	N
	.....1997..	X	
33100076	Other nonferrous shapes and forms (excluding castings, forgings, and fabricated metal products)	X	4 106
33142111	Copper and copper-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products)	X	N
32720003	Glass and glass products (excluding windows and mirrors)	X	10 373
	.....2002..	X	N
	.....1997..	X	
331000A7	Insulated wire and cable (including magnet wire)	X	D
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products	X	N
33331401	Optical instruments and lenses (excluding sighting, tracking, and fire control)	X	N
	.....2002..	X	14 211
	.....1997..	X	N
33422001	Electronic communication equipment	X	N
33531211	Fractional horsepower electric motors (less than 1 hp)	X	2 734
33441900	Liquid crystal display screens (LCD), including LED	X	N
	.....2002..	X	6 783
	.....1997..	X	N
32220017	Paper and paperboard containers (including shipping sacks and other paper packaging supplies)	X	10 207
00970099	All other materials and components, parts, containers, and supplies	X	N
00971000	Materials, ingredients, containers, and supplies, nsk	X	199 214
	.....2002..	X	283 459
	.....1997..	X	341 228
	.....2002..	X	237 502
	.....1997..	X	

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.